Sonoma County Water Agency (Water Agency) Comments
California Department of Water Resources (DWR) Evaluation of
City Watersheds of Sonoma Valley Phase 1 Application under
Proposition 1E Integrated Regional Water Management (IRWM) Grant Program

WORK PLAN - Score: 12/15

DWR Comment:

Tasks are not of adequate detail. For example, "Task 4: Assessment and Evaluation" consists of a bulleted list of work items with no narrative of how these items will be completed.

Water Agency Response:

Task 4: Assessment and Evaluation:

- Page 3-18 highlights that of the five project elements, assessment and evaluation work has been completed on two (First St. West storm drain modification and Montini Open Space Preserve Trail System), and is 40 percent to 60 percent complete on the remaining three (Montini Open Space Preserve stormwater detention/groundwater recharge basin, Fryer Creek Culvert Replacement, and Habitat Restoration Montini Open Space Preserve and Fryer Creek).
- Additional information on how Task 4 elements will be completed is included in the Project Performance Table beginning on Page 6-1. This information includes for example: release RFP, hire design consultant, assemble team, hold kick-off meeting, conduct field investigations (borings, biological assessments, wetland delineation, survey), develop conceptual plan, etc.
- The five planning documents listed on Page 3-18 have been completed and directly support the proposed project. These documents are: *Sonoma Valley Groundwater Management Plan, City of Sonoma Storm Drain Master Plan, Fish Passage Barrier Assessment in Sonoma Creek Watershed, Montini Open Space Preserve Plan, and Sonoma County Water Agency Stream Maintenance Program Manual.*
- Assessment and evaluation tasks that have been completed and will be accomplished are also described in the Technical Justification Section (Pages 7-1 through 7-23). Some of these assessments and evaluations include the USGS Study of the groundwater resources in the basin, computer simulations of groundwater conditions within Sonoma Valley, groundwater infiltration analysis, recharge mapping, conceptual design of the Fryer Creek culvert, and development of a restoration planting plan post funding award, among others.

DWR Comment:

The construction task lacks significant details as to how the work will be performed, such as, estimated quantities or materials needed. Many of these estimates are included in the budget, which suggests this information is available.

Water Agency Response:

- In addition to Construction Task 9, some information on how work will be performed is also described in Technical Justification Section 7.

- Sections 7.4.2 and 7.4.3 describe plantings and restoration; Section 7.4.5 describes construction of the basin in general terms; and Section 7.4.9 describes construction of the Fryer Creek Culvert in general terms.
- As DWR noted, details of services, materials, quantities, and estimated costs are provided in Budget Section 4.

DWR Comment:

The construction, environmental compliance/mitigation/ enhancement, and construction administration tasks lack defined deliverables.

Water Agency Response:

It is anticipated that construction, environmental compliance/mitigation/ enhancement, and construction administration work would be summarized in the quarterly progress reports and final report. The Water Agency would also submit as built drawings and photo documentation. Appendix 1 of Work Plan Section (page 3-27) addresses environmental mitigation during construction. The types of deliverables that are identified vary depending on the topic and include everything from permits to bird nesting surveys.

BUDGET - Score 3/5

DWR Comment:

There are inconsistencies between Table A and the summary tables.

Water Agency Response:

The Water Agency believes that the inconsistencies between Table A and the summary table resulted from divergent rounding rules. With the exception of the total in the last row, Table A rounded numbers to the nearest $10. Table A's total and all numbers in the Summary table were rounded to the nearest $100. This resulted in discrepancies. For example, Category (a) in the summary table is $67,000 and in Table A it is $67,060.

DWR Comment:

The budget section is lacking an explanation of what each table contains and how each table is related.

Water Agency Response:

The Water Agency acknowledges that a budget narrative would have been helpful. The Water Agency included footnotes to Table A - Budget Detail in an effort to cross reference and explain the connection among the various budget tables.

DWR Comment:

There are inconsistencies in the budget for construction as values in Table A and C for the Montini Open Space Preserve Surface Water Detention/Groundwater Recharge Basin.

Table D for the Fryer Creek Culvert Replacement includes the sub-element component for the Restoration costs at Fryer Creek, but they are already accounted for in the Habitat Restoration line item.

Water Agency Response:
Table A - Budget Detail for construction of Montini Open Space Preserve Surface Water Detention/Groundwater Recharge Basin shows a total project cost that is the subtotal from Table C; Table A is less than Table C by $276,352.

Tables D and E both include $250,094 for habitat enhancement for Fryer Creek. As noted by DWR, Table A shows totals from Tables D and E which means that habitat enhancement was double counted.

Therefore, these two differences result in Table A being $26,258 less than it should be.

DWR Comment:
The Montini Open Space Preserve Trail System sub-element references Table F as backup documentation for the value listed in Table A, but Table F was not included in the application.

Water Agency Response:
Table F Montini Open Space Preserve Trail System was not available at the time of the application submission. A commitment letter from Sonoma County Agricultural Preservation and Open Space District confirming the $380,000 dollar amount is attached.

SCHEDULE - Score 5/5

DWR Comment:
The criterion is fully addressed and supported by thorough and well-presented documentation and logical rationale. The schedule is reasonable and consistent with the budget and work plan. The schedule demonstrates a readiness to begin construction of one component of the proposal by April 2013 (the Trail System) and the remaining construction tasks will begin in June 2015.

Water Agency Response:
No comments from the Water Agency.

MONITORING, ASSESSMENT, AND PERFORMANCE MEASURES - Score 3/5

DWR Comment:
The criterion is less than fully addressed and documentation or rationales are incomplete or insufficient. For example, the identified targets for the goal of "Alleviate flooding within the Fryer Creek subwatershed and contain, at a minimum, the 10-year storm event along the main stem of Fryer Creek" are not appropriate for the goal. All, but one of the nine (9) targets, are action items for this project goal are related to tasks required to complete the project, not physical targets that will measure project

performance and it is unclear how Target 9 "Measure flow reduction through the basin that meets the basin design criteria" helps meet the goal.

Water Agency Response:

Project Performance Measures Table Page 6-1, Goal - "Alleviate flooding within the Fryer Creek subwatershed and contain, at a minimum, the 10-year storm event along the main stem of Fryer Creek":

- Column E Measurement Tools and Methods describes measurement methods that include monitoring flooding along Fryer Creek, monitoring water levels and sediment deposition in the Fryer Creek Culvert, monitoring water levels in the detention/recharge basing and measuring basin inflow and outflow using a weir, etc.
- These measurements would be made to determine whether the Project elements meet the target or goal of containing at a minimum, the 10-year storm event along the main stem of Fryer Creek.
- The measurements are also intended to verify that the basin is performing as designed in accordance with modeling results.

TECHNICAL JUSTIFICATION - Score 6/10

DWR Comment:

The proposal appears to be technically justified to achieve the claimed benefits but lacks documentation that demonstrates the technical adequacy of the project and physical benefits are not well described. The applicant claims nine benefits within the project, but each physical benefit is not thoroughly developed or explained within this section. For example, there is inconsistency between benefit descriptions, with some containing a "with and without project" characterization and others not. The benefits values summarized in Tables 7.1 and 7.2 often contradict the values described in the text of the section. For example, the Upland and Wetland Habitat Area Created sections mention that 11,770 native wetland and upland species will be planted in the Project area, but Table 7.2 lists 14,770 plants.

Water Agency Response:

Of the nine benefits, six had "with and without" characterizations. The three that were not as well documented were Plants Installed, Education and Environmental Awareness, and Trails and Recreation Opportunities Created. In order to develop the non-monetized and monetized benefits, detailed descriptions, technical justification, and documentation including "with and without" characterizations for all nine benefits were provided in Section D2–Non-Monetized Benefits Analysis, and Section D3-Monetized Benefit Analysis.

The correct number of native wetland and upland species that will be planted in the Project area is 14,770; 11,770 for the Montini Detention Basin and 3,000 for Fryer Creek (as detailed on Budget Table E). The narrative of the Technical Justification section only stated the plant count for the Montini Detention Basin.

BENEFITS AND COST ANALYSIS - Score 15/30

DWR Comment:

Benefits of avoided project costs are also discussed, but CIP-1 is about the same project as the one proposed.

Water Agency Response:

The Water Agency does not believe CIP-1 is similar to our project in that it does not include the detention/recharge basin or the habitat restoration components of the project. The Fryer Creek Culvert Replacement design proposed for this project is also different than CIP-1.

DWR Comment:

Possibly, the sediment removal avoided costs should be included here for a total benefit of $1,273,863. This monetized benefit is much less than project costs of $3,895,842.

Water Agency Response:

The Water Agency concurs that the sediment removal avoided costs should be included.

DWR Comment:

Some of the water supply benefit may not be a benefit from the State perspective if, without project, it would be captured by downstream beneficial uses.

Water Agency Response:

Water supply benefit: Downstream of the Project area is the flood prone area. During rainfall events the "without" project condition would result in runoff escaping to San Francisco Bay thus eliminating any downstream beneficial use. The "with" Project scenario will capture that runoff for beneficial uses.

PROGRAM PREFERENCES - Score 5/10

DWR Comment:

The applicant claimed one program preference and six statewide priorities will be met with project implementation. However, applicant demonstrates this with a high degree of certainty, and adequately documents the magnitude and breadth to which each will be achieved for only five of the preferences claimed. The proposal will achieve the following: (1) Include regional projects or programs; (2) Use and Reuse Water More Efficiently; (3) Climate Change Response Actions; (4) Expand Environmental Stewardship; (5) Practice Integrated Flood Management.

Water Agency Response:

DWR's review indicates that the Water Agency did not adequately demonstrate with a high degree of certainty, and adequate documentation the magnitude and breadth to which statewide priorities (1) Drought Preparedness and (2) Protect Surface Water Quality and Groundwater Quality would be met.

The Proposition 84 and 1E Guidelines, November 2012, describe the statewide priorities as follows:

Protect Surface Water Quality and Groundwater Quality

Proposals that include:

- Protecting and restoring surface water and groundwater quality to safeguard public and environmental health and secure water supplies for beneficial uses
- Salt/nutrient management planning as a component of an IRWM Plan

Protecting surface water and groundwater quality is addressed in the Water Agency's Proposal in Section 9 Program Preferences, and supported by discussions in Section 7 Technical Justification Pages 7-14 to 7-19; Section D-2 Non-Monetized Benefits Page 4; and Section D-3 Monetized Benefits, Page 16 Item 1. The project receives water in an upper portion of the watershed that is primarily undeveloped. While this upper watershed location is very helpful for the purpose of flood reduction and groundwater recharge, it limits the potential to capture urban pollutants. The project will, however, benefit water quality by intercepting upstream land use pollutants such as the nutrients associated with fertilizers, pesticides, livestock waste, and sediments. The ability of rangeland grasses and other wetland vegetation to filter out sediments and pollutants is well documented. Water entering the basin will be held, sediments will settle out, vegetation will uptake nutrients as it grows and store it as biomass, and these nutrients will be removed from the system during routine maintenance and removal.

The Water Agency is currently preparing a salt/nutrient management plan for the Sonoma Valley Groundwater Sub-basin in coordination and collaboration with the existing stakeholder groups assembled for the Sonoma Valley Groundwater Management Program. In developing the Plan, the Water Agency is incorporating a technical analysis to identify salt and nutrient sources within the sub-basin, analyzing salt and nitrogen loading, summarizing relevant groundwater quality and monitoring data, and conducting an anti-degradation analysis.

Results and outcomes from the Sonoma Valley Salt/Nutrient Management Plan will be incorporated into the Bay Area IRWM Plan update, as will results and outcomes from any other Salt/Nutrient Management Plans developed within the Region during the IRWM Plan update timeframe.

Drought:

Desirable proposals will achieve one or more of the following:

- Promote water conservation, conjunctive use, reuse and recycling
- Improve landscape and agricultural irrigation efficiencies
- Achieve long term reduction of water use
- Efficient groundwater basin management
- Establish system interties

Conjunctive use, reuse and recycling of water, increasing water supply reliability, and efficient groundwater basin management are addressed in the Water Agency's Proposal in Section 9 Program

Preferences, and supported by discussions in Section 7 Technical Justification Pages 7-2, 7-9, 7-10, and 7-14 to 7-19; Section D-2 Non-Monetized Benefits Page 4; and Section D-3 Monetized Benefits, Page 16 Item 1. Reference documents include Farrar et al, 2006 listed in Attachment 3 Workplan Page 3-7; and the Sonoma Valley Groundwater Management Plan and the City of Sonoma Storm Drain Master Plan both listed in Attachment 3 Workplan Page 3-18.

In the Technical Justification Section Page 71-15, With and without project conditions are quantified as follows:

> The construction and operation of the Montini Multi-Use Basin will increase groundwater recharge by an estimated 10 to 150 AFY with a mid-range estimate of 80 AFY. This represents approximately 10% of the total annual loss of groundwater in storage in the basin (USGS, 2006 and Bauer, 2008). Without the project, infiltration and groundwater recharge under existing conditions is anticipated to be relatively minor…

The Water Agency feels that these discussions adequately demonstrate with a high degree of certainty, and adequate documentation the magnitude and breadth to which statewide priorities (1) Drought Preparedness and (2) Protect Surface Water Quality and Groundwater Quality would be met.